PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE GENERIC NAME *IDOTEA* J. C. FABRICIUS, 1798 (CLASS CRUSTACEA, ORDER ISOPODA) AND MATTERS CONNECTED THEREWITH.

Z.N.(S.) 412

By Poul E. Heegaard (*University of Indonesia, Bandung, Indonesia*) and L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands*)

The object of the present application is to seek the assistance of the International Commission on Zoological Nomenclature for the purpose of validating, through the use of its plenary powers, the generic name *Idotea* J. C. Fabricius, 1798 (*Suppl. Ent. syst.* : 297, 302) for the well-known genus of Isopoda to which it is universally applied.

2. The generic name *Idotea* J. C. Fabricius, 1798, sometimes incorrectly spelled *Idothea*, is at present used by all carcinologists to denote a common and widely distributed genus of Isopoda. From a strict nomenclatorial viewpoint, however, this name is invalid as a junior homonym of *Idotea* Weber, 1795 (*Nomencl. ent.* : 94), a name proposed for a genus of Decapod Crustacea, for which it has never been used except by its original author. A suppression of the name *Idotea* Weber, 1795, which is a junior objective synonym of *Emerita* Scopoli, 1777 (*Introd. Hist. nat.* : 405) will not cause any change in the nomenclature of the Decapoda, while it will prevent an enormous confusion in that of the Isopod Crustacea. In our opinion, therefore the use of the plenary powers is fully justified here.

3. It was Rathbun (1904, *Proc. biol. Soc. Washington* **17** : 171) who first pointed out that the name " *Idotea* is not available for a genus of Isopods as defined by Fabricius, 1798 ", but she left it to her colleague Richardson (1905, *ibid.* **18** : 9) to find the correct name for the Isopod genus concerned. According to Richardson this name should be *Idothea* J. C. Fabricius, 1799 (*Index alph. Suppl. Ent. syst.* : 27), which she thought to be an emendation of *Idotea* J. C. Fabricius, 1798 ; however, according to the Rules, J. C. Fabricius's 1799 name can only be considered an erroneous spelling of *Idotea* and thus has no status in nomenclature. The result of Miss Richardson's publication was that those authors who considered *Idotea* J. C. Fabricius, 1798, invalid, used the name *Idothea* J. C. Fabricius, 1799, for the genus, while those who were opposed to digging up Weber's 1795 names continued to use the former (1798) name, which by some was misspelled *Idothea*. This is the reason why *Idot(h)ea* is still in current use for the Isopod genus and is adopted by all workers in the group. If the Commission under their plenary powers decide to place *Idotea* J. C. Fabricius, 1798, on the Official List, then the erroneous spelling *Idothea* J. C. Fabricius, 1799, the *nomen nudum Idothea* J. C. Fabricius, 1796 (*Index Ent. syst.* : 86), and Richardson's (1905 : 10) emendation *Idothea* should all be placed on the Official Index. If the Commission decides not to use its plenary powers here, the correct name for the genus concerned will be *Gonotus*

Rafinesque, 1814 (*Préc. Découv. Trav. somiol.* : 26), a highly obscure name which has never been used except by its original author.

4. The first type-selection for *Idotea* J. C. Fabricius, 1798, is that by Latreille, 1810 (*Consid. gén. Crust. Arach. Ins.* : 109, 423), who designated " *Cymothoa entomon* Fab." [=*Oniscus entomon* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 636]. This selection is, however, invalid, as *Oniscus entomon* is not among the species originally included by J. C. Fabricius (1798) in his genus *Idotea*. This is very fortunate, since *Oniscus entomon* L. is at present treated as the type-species of a distinct genus *Saduria* Adams (1852, *Sutherland's J. Voy. Baffin Bay Barrow Strait* **2** : ccvii). This genus is often cited with the name *Mesidotea* Richardson, 1905 (*Bull. U.S. nat. Mus.* **54** : 347), which, however, is a junior synonym of *Saduria* (see Bowman, 1955, *J. Wash. Acad. Sci.* **45** : 225). As far as we know, no type-species has ever been designated for *Mesidotea* Richardson, and we therefore now select as such *Oniscus entomon* Linnaeus, 1758. This selection makes the synonymy of *Mesidotea* Richardson and *Saduria* Adams an objective one. It seems best now to place the generic name *Saduria* Adams on the Official List and *Mesidotea* Richardson on the Official Index. *Mesidotea*, though a well-known name, is not in such general use that its replacement by *Saduria* will cause undesirable confusion.

5. The first valid type-selection for *Idotea* J. C. Fabricius, 1798, is that by Miers, 1881 (*J. linn. Soc. London, Zool.* **16** : 24), who stated : " This section [of *Idotea* Fabr.] includes *Idotea marina* (Linn.), which may be considered the type of the genus in its restricted sense ". *Oniscus marinus* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 637) was included by J. C. Fabricius, 1798, in the original establishment of *Idotea* and at present is still considered to be a species of that genus, but this type-selection, though perfectly valid, has a serious drawback, namely, the doubtful identity of the nominal species *Oniscus marinus* L. As shown by Dahl, 1916 (*Asseln Isop. Deutschl.* : 29), this species has been identified by various authors with different species of Isopoda : with *Cymothoa emarginata* J. C. Fabricius, 1793 (*Ent. syst.* **2** : 508) by De Geer (1778, *Mém. Hist. Ins.* **7** : 522) ; with *Jaera albifrons* [Leach], [1814] (Brewster's *Edin. Ency.* **7**(2) : 434) by *O. Fabricius*, 1780 (*Fauna Groenl.* : 252) and G. O. Sars, 1897 (*Crust. Norway* **2**(5, 6) : 104) ; and with *Oniscus balthicus* Pallas, 1772 (*Spicil. Zool.* (9) : 66) by J. C. Fabricius, 1793 (*Ent. syst.* **2** : 506) and Miers, 1881 (*J. linn. Soc. London, Zool.* **16** : 25). Many authors followed Sars, but others followed Miers, so that in recent literature the name *marina* is used either for a species of *Jaera* (often with O. Fabricius cited as the author) or for a species of *Idotea*. Since *Oniscus marinus* Linnaeus undoubtedly is a species of *Idotea*, the practice of applying the name to a species of *Jaera* is positively incorrect. Miers (1881 : 30, 31) remarked : " In the Linnean Cabinet at the rooms of the Linnean Society at Burlington House is a specimen which bears the name ' *marinus* ', in what is undoubtedly Linnaeus's handwriting. Hence I have little hesitation in citing his name for this species ". This statement seems definitely to decide the matter in favour of Miers's view. Unfortunately, however, Miers's concept of *Idotea marina* (L.) was very wide and included not only Pallas's *Oniscus balthicus*, but also several forms which at present are considered to represent distinct species. Linnaeus's type material was re-examined by the junior

author in June 1956. This showed that tray 204 of Cabinet 60 of the Linnean collection at Burlington House, London, contains four dry pinned specimens of *Idotea*, placed together in a single row. Two of these specimens are not labelled and prove to belong to *Idotea granulosa* Rathke, 1843 and *I. chelipes* (Pallas, 1766). The third belongs to *I. linearis* (Linnaeus, 1763) and is labelled " linearis " : this is evidently the type of *Oniscus linearis* Linnaeus, 1763. The fourth specimen is clearly the holotype of *Oniscus marinus* L., for it is provided with a label bearing the inscription " marinus ", which must be the label referred to by Miers (1881). This last specimen proves to belong to the species which at present is known by the name *Idotea neglecta* Sars, 1897 (*Crust. Norway* 2(5, 6) : 84). The discovery of the identity of Linnaeus's type-specimen makes it necessary to transfer the name *marina* from one species of *Idotea* to another, an action which will cause no end of confusion. Since the name *marina* has also been used for a species of *Jaera*, it seems best, in order to maintain a stable nomenclature in the Isopoda, to suppress altogether the severely compromised name *Oniscus marinus* L. This suppression would make it possible to use the names *Idotea balthica* (Pallas), *I. neglecta* Sars, and *Jaera albifrons* [Leach], all of which are well known and widely used names. The suppression of Linnaeus's name *marinus* will therefore have no undesirable consequences. The only drawback is that *Oniscus marinus*, as shown above, is the type-species of the genus *Idotea* J. C. Fabricius, 1798. For this reason we propose that the Commission should use its plenary powers to designate as the type of that genus the species *Cymothoa emarginata* J. C. Fabricius, 1793, which was included by J. C. Fabricius in the original description of his *Idotea*, while at the same time this species is well known and is currently assigned to *Idotea* by all Isopod specialists.

6. This opportunity should also be taken to place the generic name *Jaera* [Leach], [1814] (*Brewster's Edin. Ency.* 7(2) : 434) on the Official List. The name is at present universally adopted for a well-known and widely distributed genus of Isopoda, of which it is, so far as we know, the valid name. At the same time, the specific name *albifrons* [Leach], [1814] (*ibid.* : 434) should be placed on the Official List of Specific Names as the name of the type-species of *Jaera*. It is for this species that O. Fabricius, 1780, wrongly used the specific name *Oniscus marinus*, Linnaeus, 1758, and since, although he did not propose the name as new he has often been cited as its author, it is proposed that the alleged specific name *O. marinus* O. Fabricius, 1780, be placed on the Official Index.

7. The problem of the correct name for the Decapod genus named *Idotea* by Weber, 1795, is rather complicated. The earlier synonymy of the generic name is :

Emerita Gronovius, 1764, *Zoophyl. Gronov.* (2) : 234
Emerita pars Scopoli, 1777, *Introd. Hist. Nat.* : 405
Emerita Meuschen, 1778, *Mus. Gronov.* : 87
Emerita Meuschen, 1781, *Index Zoophyl. Gronov.* : (9)
Idotea Weber, 1795, *Nom. ent.* : 94
Emerita Bosc, 1801–1802, *Hist. nat. Crust.* 1 : 67.

Gronovius (1764) recognised two species in his genus *Emerita*, namely, *E. thorace subcompresso laevi* (No. 1000) and *E. thorace depresso laevi* (No. 1001), both figured by him. The currently used names for these species are *Emerita emerita* (Linnaeus) and *Hippa cubensis* (De Saussure) respectively. Gronovius's work, which is not binominal, is not available in nomenclature and has therefore been rejected in Opinion 89 (1925, *Smithson. misc. Coll.* **73**(3) : 321). Both of the publications in which Meuschen (1778 and 1781) used the name *Emerita*, basing himself on Gronovius's 1764 work, have likewise been rejected by the Commission, in Opinions 260 and 261 respectively (1954, *Ops. Decls. Int. Comm. zool. Nomencl.* **5** : 265, 281). Scopoli (1777), in using the name *Emerita*, assigned it to Gronovius as the author. As Scopoli's book is available nomenclatorially, and as he provided a diagnosis for *Emerita* and himself adopted the name, it is available as from his work and date. Unfortunately, he did not cite any nominal species, while his description better fits the genus *Pagurus* J. C. Fabricius, 1775 than Gronovius's genus *Emerita*. Furthermore, Scopoli's reference to a figure of *Pagurus bernhardus* (Linnaeus) published by Swammerdam, 1737 (*Bibl. Nat.* : pl. 11) shows that he included Pagurids in his genus *Emerita*. This genus is therefore evidently of a composite nature, containing not only Gronovius's species 1000 and 1001, but also at least *Pagurus bernhardus* (Linnaeus, 1758). As no nominal species was assigned by Scopoli to his genus *Emerita*, the type-species, according to the Rules, is the first species subsequently assigned to the genus. This species, so far as we can find out, is " *Hippa emeritus* Fab." [=*Cancer emeritus* Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1**(2) : 1055], which was placed in the genus by Bosc (1801–1802, *Hist. nat. Crust.* **1** : 67). Bosc also considered Gronovius as the author of the generic name, as is evident from his remark (: 67, 68) : " Gronovius avoit fait, le premier, de ce crabe un nouveau genre, sous le nom d'*Emerita*. Pourquoi Fabricius l'a-t-il changé ? " According to the Rules, *Cancer emeritus* Linnaeus, 1767, is thus the type-species of *Emerita* Scopoli, 1777, even though Scopoli's description does not entirely fit the species. In this way the genus which has hitherto been generally cited either as *Emerita* Gronovius, 1764, or as *Emerita* Meuschen, 1778 (or 1781), must actually be known as *Emerita* Scopoli, 1777. The strict application of the Rules thus validates the current usage of the name *Emerita*, only the author's name and date having to be changed.

8. The original description of *Cancer emeritus* Linnaeus, 1767, the type-species of *Emerita* Scopoli, 1777, runs as follows :

> " C[ancer]. manibus nullis, pedibus utrinque quinque natatoriis.
> *Gron. zooph.* 1000. *t.* 17. *f.* 8, 9. Emerita.
> *Pet. pterigr. t.* 20, *f.* 9
> *Habitat in Mari* Indico."

As already shown by Schmitt, 1935 (*Sci. Surv. Porto Rico Virgin Is.* **15**(2) : 211), Linnaeus's species is composite. Petiver's animal, which was collected at Barbados, is probably *Hippa cubensis* (de Saussure, 1857), while the specimen figured by Gronovius originated from the Indian Ocean and is identical with *Hippa asiatica* H. Milne Edwards, 1837. In his text, Gronovius referred to Petiver's pl. 20, fig. 9, and, with some doubt, to Marcgraf's (1648, Piso & Marcgraf's *Hist. nat. Brasil.* (2) : 186) and Jonston's (1650, *Hist. nat. Exang. aquat.* : pl. 9, fig. 14) figures of *Parribacus antarcticus* (Lund, 1793). So far as is known to us, no lectotype has ever been selected for *Cancer emeritus*

Linnaeus, 1767. In order to put the identity of that species beyond dispute, we now select the specimen from " Mari Indico " described by Gronovius (1764, *Zoophyl. Gronov.* (2) : 234) as *Emerita thorace subcompresso laevi* and figured by him on pl. 17, figs. 8, 9. This type-selection is in accordance with Schmitt's (1935) views and makes *Cancer emeritus* L. a senior subjective synonym of *Hippa asiatica* H. Milne Edwards, 1837.

9. During the greater part of the nineteenth century, the generic name *Hippa* J. C. Fabricius, 1787 (*Mant. Ins.* 1 : 329) was incorrectly used for the genus *Emerita* Scopoli, 1777. This practice started with Latreille, 1810 (*Consid. gén. Crust. Arach. Ins.* : 99, 422), who indicated "*Hippa emeritus* Fab." as the type-species of the genus *Hippa* Fabr. This selection is invalid, as *Cancer emeritus* L. is not among the species originally included by Fabricius in *Hippa.* The first valid type-selection for this genus seems to be that by Rathbun, 1900 (*Proc. U.S. nat. Mus.* 22 : 301), who selected *Hippa adactyla* J. C. Fabricius, 1787 (*Mant. Ins.* 1 : 329). It was only after the publication of Rathbun's paper that the names *Hippa* and *Emerita* were used for their proper genera. It seems worth while now to have the generic name *Hippa* J. C. Fabricius, 1787, placed on the Official List.

10. Only two family-group names are involved here, namely, IDOTEIDAE (correction of IDOTEADAE) Samouelle, 1819, *Entom. useful Compendium* : 106 (first correctly spelled by White, 1847, *List Crust. Brit. Mus.* : 93) and HIPPIDAE (correction of HIPPIDES) Latreille, 1825, *Fam. nat. Règne Anim.* : 275 (first correctly spelled by White, *op. cit.* : 57). Both these names should now be placed on the Official List.

11. The concrete proposals that we now submit to the International Commission on Zoological Nomenclature are that it should :

(1) use its plenary powers :
  (a) to suppress the generic name *Idotea* Weber, 1795, for the purposes of both the Law of Priority and the Law of Homonymy ;
  (b) to suppress the specific name *marinus* Linnaeus, 1758, as published in the binomen *Oniscus marinus*, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
  (c) to set aside all designations of type-species for the nominal genus *Idotea* J. C. Fabricius, 1798, made prior to the proposed decision, and having done so ;
  (d) to designate *Cymothoa emarginata* J. C. Fabricius, 1793, to be the type-species of that genus ;

(2) place the following names on the Official List of Generic Names in Zoology :
  (a) *Emerita* Scopoli, 1777 (gender : feminine), type-species, by subsequent monotypy, *Cancer emeritus* Linnaeus, 1767 ;
  (b) *Hippa* J. C. Fabricius, 1787 (gender : feminine), type-species, by selection by Rathbun, 1900, *Hippa adactyla* J. C. Fabricius, 1787 ;
  (c) *Idotea* J. C. Fabricius, 1798 (gender : feminine), type-species, by designation under the plenary powers in (1)(d) above, *Cymothoa emarginata* J. C. Fabricius, 1793 ;

  - (d) *Jaera* [Leach], [1814] (gender : feminine), type-species, by monotypy, *Jaera albifrons* [Leach], [1814] ;
  - (e) *Saduria* Adams, 1852 (gender : feminine), type-species, by monotypy, *Oniscus entomon* Linnaeus, 1758 ;
- (3) place the following specific names on the Official List of Specific Names in Zoology :
  - (a) *adactyla* J. C. Fabricius, 1787, as published in the binomen *Hippa adactyla* (type-species of *Hippa* J. C. Fabricius, 1787) ;
  - (b) *albifrons* [Leach], [1814], as published in the binomen *Jaera albifrons* (type-species of *Jaera* [Leach], [1814]) ;
  - (c) *balthicus* Pallas, 1772, as published in the binomen *Oniscus balthicus* ;
  - (d) *emarginata* J. C. Fabricius, 1793, as published in the binomen *Cymothoa emarginata* (type-species of *Idotea* J. C. Fabricius, 1798) ;
  - (e) *emeritus* Linnaeus, 1767, as published in the binomen *Cancer emeritus*, and as defined by the lectotype selected in paragraph 8 above (type-species of *Emerita* Scopoli, 1777) ;
  - (f) *entomon* Linnaeus, 1758, as published in the binomen *Oniscus entomon* (type-species of *Saduria* Adams, 1852) ;
  - (g) *neglecta* Sars, 1897, as published in the binomen *Idothea neglecta* ;
- (4) place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology :
  - (a) *Emerita* Gronovius, 1764, published in a work rejected for nomenclatorial purposes in Opinion 89 ;
  - (b) *Emerita* Meuschen, 1778, published in a work rejected for nomenclatorial purposes in Opinion 260 ;
  - (c) *Emerita* Meuschen, 1781, published in a work rejected for nomenclatorial purposes in Opinion 261 ;
  - (d) *Idotaea* Dana, 1849 (*Amer. J. Sci.* (2) 8 : 426) an erroneous subsequent spelling of *Idotea* Fabricius, 1798 ;
  - (e) *Idotea* Weber, 1795, suppressed under the plenary powers in (1)(a) above ;
  - (f) *Idothea* J. C. Fabricius, 1796, a *nomen nudum* ;
  - (g) *Idothea* J. C. Fabricius, 1799, an erroneous subsequent spelling of *Idotea* Fabricius, 1798 ;
  - (h) *Idothea* Richardson, 1905, an unjustified emendation of *Idotea* Fabricius, 1798 ;
  - (i) *Mesidotea* Richardson, 1905, a junior objective synonym of *Saduria* Adams, 1852 ;
- (5) place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :
  - (a) *marinus* Linnaeus, 1758, as published in the binomen *Oniscus marinus*, suppressed under the plenary powers in (1)(b) above ;
  - (b) *marinus* O. Fabricius, 1780, as published in the binomen *Oniscus marinus*, an alleged but non-existent name ;
- (6) place the following names on the Official List of Family-Group Names

in Zoology:
- (a) HIPPIDAE (correction of HIPPIDES) Latreille, 1825 (type-genus *Hippa* J. C. Fabricius, 1787);
- (b) IDOTEIDAE (correction of IDOTEADAE) Samouelle, 1819 (type-genus *Idotea* J. C. Fabricius, 1798);

(7) place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:
- (a) HIPPIDES Latreille, 1825 (type-genus *Hippa* J. C. Fabricius, 1787), an incorrect original spelling for HIPPIDAE;
- (b) IDOTEADAE Samouelle, 1819 (type-genus *Idotea* J. C. Fabricius, 1798), an incorrect original spelling for IDOTEIDAE.

COMMENT ON THE PROPOSED ADDITION TO THE OFFICIAL LIST OF THE GENERIC NAME *DICTYOCONUS* BLANCKENHORN, 1900. Z.N.(S.) 316

(See this volume, pages 30–31.)

By A. N. Dusenbury, Jr. (*Creole Petroleum Corporation, Venezuela*)

I am in full agreement with Dr. Donald L. Frizzell's proposal for the addition to the Official List of the generic name *Dictyoconus* (Foraminifera). He is quite correct in stating that Woodring, 1924, was in error in citing *Patellina egyptiensis* as type-species by monotypy and again correct in the assertion that Cushman, 1933, made the first unequivocal designation of the same species as the type-species. However, Cushman in 1928 (Spec. Publ. Cushman Lab. Foram. Res., No. 1, p. 182) made a prior designation, of which Frizzell has omitted mention, in these words: " Geno-holotype, *Patellina aegyptiensis* Chapman ", under the heading: " Genus *Dictyconus* Blanckenhorn, 1900 ".

The meaning attached to the word genoholotype is of great importance in determining whether or not the 1928 designation is valid. According to Frizzell (1933, Amer. Midland Naturalist, vol. 14, no. 6, p. 648–649), the word genoholotype is a synonym of the word genotype, both words indicating the type-species of a genus. Under this definition the 1928 designation would be valid. However, Cushman himself (loc. cit., p. 51) has explained what he means by the word genoholotype in the following sentence: " Wherever the genus is monotypic, . . . , the type-species has been here called a genoholotype." Therefore, when he declares " *Patellina aegyptiensis* " to be " genoholotype ", he is merely repeating Woodring's error in neglecting to note that Blanckenhorn established the genus with two originally included species, hence the 1928 designation by Cushman must be considered invalid. In his 1933 edition Cushman replaced the word genoholotype with the word genotype.

It will be noted that in 1928 Cushman employed the emended form *aegyptiensis* instead of the valid original spelling *egyptiensis*, although in 1933 he corrected this error. The earliest known use of the invalid emended form is by Airaghi, 1904 (*Atti Soc. ital. Sci. nat.* 43: 160, 183). It is suggested that the International Commission place the specific name *aegyptiensis* Airaghi, 1904 (an Invalid Emendation of *egyptiensis* Chapman, 1900), as published in the binomen *Conulites aegyptiensis*, on the Official Index of Rejected and Invalid Specific Names in Zoology.